

REMARKS

Status of the Claims

The Office Action mailed December 3, 2004, has been reviewed and the Examiner's comments have been carefully considered. Claims 1-18 were pending in the application. Since no claims have been canceled or newly added, claims 1-18 are pending and are submitted for reconsideration.

Applicant sincerely thanks the examiner for indicating that claims 9-17 are allowed.

Prior Art Rejection

Claims 1-8 and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 5,704,316 to Fujimoto (hereafter "Fujimoto"). Applicant respectfully traverses this rejection for at least the following reasons.

Independent claim 1 recites, *inter alia*, an installation-angle adjusting mechanism comprising a movable operating member that varies a relative-rotation phase between a crankshaft and a camshaft by way of movement of the movable operating member in a radial direction of the camshaft by an electromagnetic force depending on engine operating conditions. Claim 18 recites, *inter alia*, converting the rotational movement produced by an electromagnetic force depending on engine conditions into a radial displacement. That is, one of the recited features is that the relative-rotation phase is varied by way of an electromagnetic force. At least this recited feature is not disclosed or suggested by Fujimoto.

Specifically, Fujimoto teaches and discloses an engine valve drive system with a variable valve timing device 30 including:

- (a) an inner sleeve 36 mounted on a camshaft 20;
- (b) a cylindrical cam robe 38 surrounding the camshaft 20;
- (c) a viscous coupling 40 interposed between the cam robe 38 and the inner sleeve 36; and
- (d) a spiral spring 42 interposed between the cam robe 38 and the inner sleeve 36.
(see column 5 lines 29-36 of Fujimoto).

The Office Action erroneously states (in the last three lines of page 2 to the first two lines of page 3) that Fujimoto also teaches means for moving the movable operating member in a radial direction of the camshaft 20 by an electromagnetic force. (See Figure 2 (40), (66)).

However, note that the component part denoted by reference sign 40 is a viscous coupling. On the other hand, the component part denoted by reference sign 66 is a ring-shaped oil seal (see lines 58-67 of column 5 of Fujimoto).

Thus, the assertion in the Office Action that a combined device of the viscous coupling denoted by reference sign 40 and the oil seal denoted by reference sign 66 corresponds to means for moving the movable operating member in a radial direction of the camshaft 20 by an electromagnetic force, is plainly incorrect.

Accordingly, Fujimoto does not disclose or suggest the claimed device and method in which an electromagnetic force converts a rotational movement into a radial displacement in the phase or installation angle adjusting/changing mechanism, as recited in the pending independent claims 1 and 18. Since at least this recited feature in the pending independent claims 1 and 18 is not disclosed or suggested by the applied prior art, these claims are patentable over the applied prior art.

The dependent claims are also in condition for allowance for at least the same reasons, as discussed above, as the independent claims on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole.

Conclusion

In view of the foregoing amendments and remarks, applicant believes that the application is in condition for allowance. If there are any questions regarding the application, or if an examiner's amendment would facilitate the allowance of one or more of the claims, the examiner is courteously invited to contact the undersigned attorney at the local telephone number below.

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicant hereby petitions for any needed extension of time.

Respectfully submitted,

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